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UQCRC1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18967a

Product Information

Application	WB, E
Primary Accession	P31930
Other Accession	Q68FY0, Q9CZ13, NP_003356.2
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39187
Calculated MW	52646
Antigen Region	141-170

Additional Information

Gene ID	7384
Other Names	Cytochrome b-c1 complex subunit 1, mitochondrial, Complex III subunit 1, Core protein I, Ubiquinol-cytochrome-c reductase complex core protein 1, UQCRC1
Target/Specificity	This UQCRC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 141-170 amino acids from the N-terminal region of human UQCRC1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	UQCRC1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UQCRC1
Function	Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit

	transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. The cytochrome b-c1 complex catalyzes electron transfer from ubiquinol to cytochrome c, linking this redox reaction to translocation of protons across the mitochondrial inner membrane, with protons being carried across the membrane as hydrogens on the quinol. In the process called Q cycle, 2 protons are consumed from the matrix, 4 protons are released into the intermembrane space and 2 electrons are passed to cytochrome c (By similarity). The 2 core subunits UQCRC1/QCR1 and UQCRC2/QCR2 are homologous to the 2 mitochondrial-processing peptidase (MPP) subunits beta-MPP and alpha-MPP respectively, and they seem to have preserved their MPP processing properties (By similarity). May be involved in the in situ processing of UQCRFS1 into the mature Rieske protein and its mitochondrial targeting sequence (MTS)/subunit 9 when incorporated into complex III (Probable). Seems to play an important role in the maintenance of proper mitochondrial function in nigral dopaminergic neurons (PubMed:33141179).
Cellular Location	Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07256}; Peripheral membrane protein {ECO:0000250|UniProtKB:P07256}; Matrix side {ECO:0000250|UniProtKB:P07256}
Tissue Location	Expressed in brain, including substantia nigra, striatum, cortex and cerebellum, and in spinal cord, heart, kidney, liver and muscle.

Background

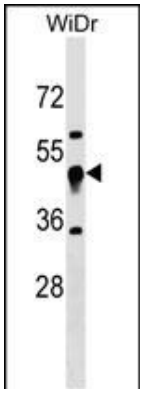
This is a component of the ubiquinol-cytochrome c reductase complex (complex III or cytochrome b-c1 complex), which is part of the mitochondrial respiratory chain. This protein may mediate formation of the complex between cytochromes c and c1.

References

Martins-de-Souza, D., et al. J Psychiatr Res 43(11):978-986(2009)
Martins-de-Souza, D., et al. Eur Arch Psychiatry Clin Neurosci 259(3):151-163(2009)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Kulawiec, M., et al. Cancer Biol. Ther. 5(8):967-975(2006)
Aboulaich, N., et al. Biochem. J. 383 (PT 2), 237-248 (2004) :

Images

UQCRC1 Antibody (N-term) (Cat. #AP18967a) western blot analysis in WiDr cell line lysates (35ug/lane).This demonstrates the UQCRC1 antibody detected the UQCRC1 protein (arrow).



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